

MEMO

Submitted by: Ezra Rapport, Deputy Executive Director

Subject: Solar and Energy Efficiency District

Date: March 4, 2009

Executive Summary

Numerous cities and counties are taking action to reduce residential energy use to meet climate change goals. AB 811 enabled cities and counties to allow property owners to finance the up-front cost of renewable energy and energy efficiency improvements through his/her property tax bill. In order to bring this program to scale, ABAG is considering creating a regional financing district, or Solar and Energy Efficiency (SEE) District, in partnership with PG&E. The District could spread overhead and financing cost over a much larger market area, making the program more feasible and encouraging broader retrofit participation for solar and energy efficiency improvements. This program would consolidate available subsidies and work in concert with existing PG&E initiatives.

Recommended Action – Information Item

The concept of a regional solar and energy efficiency financing district will be presented at the March 19, 2009 ABAG Executive Board Meeting for discussion. Discussion points include:

- What are the risks and benefits of a regional approach to financing solar and energy efficiency projects?
- How can an ABAG sponsored program add value to existing clean energy municipal financing programs?
- Should financing solar and energy efficiency projects be a priority for ABAG?

Next Steps

If Executive Board members see value in further defining the Solar and Energy Efficiency District concept, a business plan will need to be developed to determine the program costs, product and services provided, demand, risks, and fees and other program details.

Attachments: Solar and Energy Efficiency Financing Report

Solar and Energy Efficiency District

Report to the ABAG Executive Board

March 4, 2009

Executive Summary

Given the context of climate change, urgent action is needed to reduce energy use in commercial and residential buildings and cut greenhouse gas emissions. Several state and local programs already exist to reduce energy use through the installation of solar panels and energy efficiency improvements, but the high up-front cost of these installations is a barrier to implementation. Local governments are attempting to address this barrier by offering various financing programs. An opportunity may exist to reduce program administration costs, improve financing terms, and encourage broader adoption of energy efficiency technologies by creating a regional district, referred to as the Solar and Energy Efficiency (SEE) District, using ABAG's Joint Powers Agency, the ABAG Finance Authority for Nonprofit Corporations. ABAG staff is currently assessing the feasibility of such a District. The District would finance solar and energy efficiency improvements if private property owners within the District agree to make special tax payments on their property tax bills over a 20 year term. Creation of a regional financing district could stimulate private investments in solar and energy efficiency projects, which supports the local economy, job creation, and a reduction in energy use.

Issue Summary

The projected effects of global climate change underscore the urgent need for bold actions to be taken now to change course. Sir Nicholas Stern, Head of the UK Government Economic Service and former Chief Economist of the World Bank, conducted a comprehensive review of the economic consequences of climate change. His report finds that the costs of not acting (between 5% and 20% of the global gross domestic product (GDP) each year) outweigh the costs of acting (approximately 1% of global GDP each year). Thus, *The Stern Review* shines light on the opportunity to work collaboratively to reduce greenhouse gas emissions.

California has adopted innovative policies to combat global warming. One of these is the California Global Warming Solutions Act of 2006, or AB 32, which became the first state law in the nation to limit greenhouse gas emissions. This law lays the foundation for a plan to limit California's greenhouse gas emissions to 1990 levels by the year 2020. The California Air Resources Board (CARB) was charged with developing the plan. The resulting *Draft Scoping Plan* adopted by CARB in December 2008 set a 2020 target of 427 million metric tons of carbon equivalent (MMTCO₂E), which requires a reduction of 169 MMTCO₂E from the state's projected business as usual emissions. CARB estimates that the second largest contributor to greenhouse gas emissions behind the transportation sector is the electricity and commercial/residential energy sector. The Plan identifies several greenhouse gas reduction measures to incorporate renewable energy sources and energy efficiency improvements. By implementing strategies that encourage the use of solar energy and improving energy efficiencies in buildings, the residential and

commercial sectors of our economy can make a significant contribution toward the 2020 target.

Background

California adopted legislation that encourages the installation of renewable energy sources and energy efficiency improvements on private property. On July 21, 2008, California Assembly Bill 811 (AB 811) was signed into law to provide cities and counties with a tool to finance these projects using contractual fixed lien assessments. Contractual fixed lien assessments are voluntarily placed against private property to secure loans from a local government to pay for private improvements. These fixed liens are secured on a parity with property taxes. Through contractual assessment financing, cities and counties could agree to pay for renewable energy and energy efficiency improvements on private property, and a private property owner could agree to finance the improvements overtime through the payment of assessment installments on his/her property tax bill.

Assembly Bill 1709, vetoed by the Governor last year, would have provided expanded authority for local governments to finance the installation of energy efficiency and renewable energy improvements to or on real property and in buildings through the creation of community facilities districts and the levy of special taxes under the Mello-Roos Community Facilities Act of 1982. This bill was reintroduced on February 24, 2009 as Senate Bill 279 (SB 279). SB 279, which is based on a special tax financing law adopted by the City of Berkeley under its powers as a charter city, would allow the cost of renewable energy/energy efficiency improvements to be paid by the property owner over a 20 year term through a voluntary special tax also on a parity with his/her property taxes. The Solar and Energy Efficiency District design would utilize the special tax financing mechanism proposed in SB 279 instead of assessment financing allowed by AB 811 and, as a result, would mitigate several legal issues that cloud implementation of financings under AB 811.

A number of local governments have begun efforts to finance renewable energy and energy efficiency improvements to private property using expanded legal authority through AB 811 or charter city authority to amend municipal ordinances. The City of Berkeley was the first in the Bay Area to develop a municipal financing program for solar installations using the city's charter authority. The City of Palm Desert has a financing program that encompasses solar and energy efficiency improvements using AB 811. Other local governments have financing programs under development including San Francisco (a charter city special tax program like Berkeley's), San Diego (based on AB 811), Sonoma County (based on AB 811), and Solana Beach (based on AB 811). California Statewide Communities Development Authority will also be authorizing a statewide program soon (based on AB 811 while SB 279 is unavailable).

The following table outlines several existing financing programs:

Jurisdiction	Program	Status
City of Palm Desert	Energy Independence Program (EIP)	Approximately \$1.5 million in funds for Phase 1 and Phase 2 of the Energy Independence Program are all currently allocated from this city's general fund. Seeking additional funding sources for Phase 3.
City of Berkeley	Berkeley FIRST	Pilot program rolled out November 2008. 38 projects have funding committed. 2 Loans have been originated.
City of San Diego	San Diego Clean Generation program (pilot)	RRQ due Feb. 27, 2009; Pilot Program Start Date expected Sept. 1, 2009
Sonoma County & Cities of Sonoma County	Sonoma County Energy Independence Program	Under consideration by the Board of Supervisors
City and County of San Francisco	Clean Energy Loan Program	RFP due April 1, 2009
City of Solano Beach	Solana Beach Solar and Energy Efficiency Financing Program	RFP due March 13, 2009
California Statewide Communities Development Authority	Renewable Energy System & Energy Efficiency Upgrade Financing Programs	Program launch expected early 2009

The SEE District will build upon these efforts to achieve the broadest penetration of solar and energy efficiency retrofit measures in the Bay Area. The objectives for the SEE program could potentially be to use special tax financing authority, spread the administration cost over a wide base, maximize state and federal subsidies, and be designed with a comprehensive customer service component to make the solar and energy efficiency financing and installation process as easy as possible for the residential and small business owner.

The SEE District will seek to maximize state and federal subsidies available for energy efficiency and solar installations. For instance, the California Solar Initiative offers financial incentives for solar installations based on expected performance. The federal stimulus package, or American Recovery and Reinvestment Act of 2009, clarified the use of a federal energy tax credit when used in conjunction with clean energy municipal financing. In addition the federal stimulus package provides \$3.2 billion for Energy Efficiency and Conservation Block Grants, \$2.25 billion for energy-efficiency retrofits for low-income housing, \$5 billion for the Weatherization Assistance Program for efficiency in low-income households, and \$3.2 billion in Qualified Energy Conservation Bonds, which are tax credit bonds that may be issued to finance renewable/energy efficiency improvements to private property. These incentives present opportunities to

make solar and energy efficiency installations more affordable to property owners and underscore the need to proceed as quickly as possible with this District.

Program Vision

The SEE District would be available for every interested and qualified San Francisco Bay Area property owner to finance solar and energy efficiency improvements to their residential or commercial property through a regional financing program. The program will be designed for easy accessibility and provide assistance to take full advantage of all local, state and federal incentives. The District could also promote existing efforts to improve the solar permitting process and to ensure an adequate workforce exists to meet the increased demand for solar and energy efficiency improvements.

Program Design

The program design can be divided into three work elements: administration, financing, and facilitating program implementation. Each work element is large and potentially costly, but the program could be designed to cover these costs. Specifics regarding roles and responsibilities need to be defined with partners and a potential program administrator, who could manage the administrative components of the program.

ABAG staff believes PG&E is a logical strategic partner in the design of this program and has begun meeting with PG&E staff to explore this opportunity. Initial meetings with PG&E suggest the utility is committed to exploring the feasibility of this program with ABAG. PG&E has designated staff within each of their programmatic teams to review implementation issues and identify possible solutions. When this report refers to “partner,” the goal is to use PG&E as that partner, but since the program design is still in the exploratory phase, partner is left generalized until further direction is received from the ABAG Executive Board and PG&E management.

Financing

The financing component of this program assumes SB 279 will be signed into law. This will open the community facilities district financing model to property owners in general law cities.

Before financing can begin, a community facilities district must be established. One available option is for ABAG to create the District through its joint powers agency, the ABAG Finance Authority for Nonprofit Corporations (“Authority”). The Authority has an Executive Committee Board (“Board”) structure. Members of the Board are mainly elected Bay Area County Treasurers. Under the Mello-Roos Act, Section 53317(h) of the California Government Code, a joint powers agency, such as the Authority, is authorized to use the law to create a community facilities district. The Authority has already performed this function many times on behalf of ABAG member jurisdictions. This regional entity could form a community facilities district for financing solar installations and energy efficiency projects on private property throughout the Bay Area.

Although several technical issues need to be researched further, the following steps provide a general outline of how the District would be formed as a regional community

facilities district through the Mello-Roos Community Facilities Act of 1982 if SB 279 is signed into law:

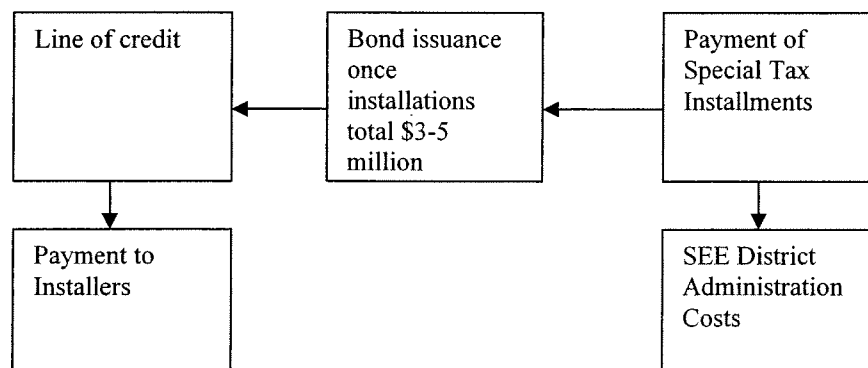
1. To confirm local support, each County Board of Supervisors would hold a public hearing and adopt a resolution supporting the formation of a District by the Authority. (This step not required by the Mello-Roos Act.)
2. At an ABAG Authority Board meeting, the Board must adopt a resolution of intention to form the District and a resolution of intention to issue bonded indebtedness for the District.
3. The Authority would send the adopted resolution of intention to form the District and exhibits to each legislative body of the cities and counties within the territory of the District for notice purposes only.
4. The Authority Board holds a public hearing. At this hearing, the Board would review protests of owners within the proposed territory of the District. Then, the Board would adopt a resolution of formation (assuming there are not enough protests to halt formation of the District), adopt a resolution of necessity to incur bonded indebtedness, and pass an ordinance levying special taxes in the District on those parcels that annex into the District by “unanimous approval.”

Once the District framework is created, the program could be launched to solicit applications. A generalized application and financing process could involve the following steps:

1. Property owner has an energy and water conservation site assessment performed.
2. Property owner works with a contractor to define the scope of the project and what amount to request for financing by the district based on eligible improvements.
3. Property owner submits an application.
4. The application is approved or rejected based on program criteria.
5. If approved, an applicant can begin work with the certainty that the cost of the improvement will be paid by the District.
6. The installation is completed.
7. The installation is certified.
8. An invoice is submitted for the work completed.
9. A schedule of special tax installments up to 20 years based upon the amount financed plus interest and administrative expenses is established.
10. The property owner will execute a “unanimous approval” agreement to annex his/her property to the District and to pay the scheduled special taxes, and a lien is placed on the property.
11. Payment is made to the installer from a line of credit.
12. The property owner repays the installments as scheduled through his/her property tax bill.
13. Once sufficient demand exists (enough property owners agreeing to annex to the District and pay the special tax), bonded indebtedness would occur.

Several other financing components need to be considered as well. These elements include covering program start-up and administration costs, securing a line of credit to pay for the installations immediately upon installation, determining the interest on which the special tax obligation is based, and issuing bonds to repay the line of credit provider. The program needs to have enough revenue to cover these costs. Revenue to pay for a Program Administrator may be generated by charging an application fee as well as by creating a spread between debt service on bonds issued by the Authority and the scheduled special taxes to be paid by properties within the District. The most cost effective way to issue bonds is to wait until the District has financed approximately \$3-5 million in improvements, but the program should not force property owners or installers to wait for financing until this amount is reached. To cover the payment to installers, a line of credit is needed. Discussions are underway to determine alternative means of covering program start-up costs and providing a line of credit to pay for the solar and energy efficiency installations as they are installed. Once \$3-5 million of installations have been financed, the Authority will issue bonds to repay the line of credit provider and replenish program capacity for financing additional improvements.

The following figure sets forth how District funds could flow:



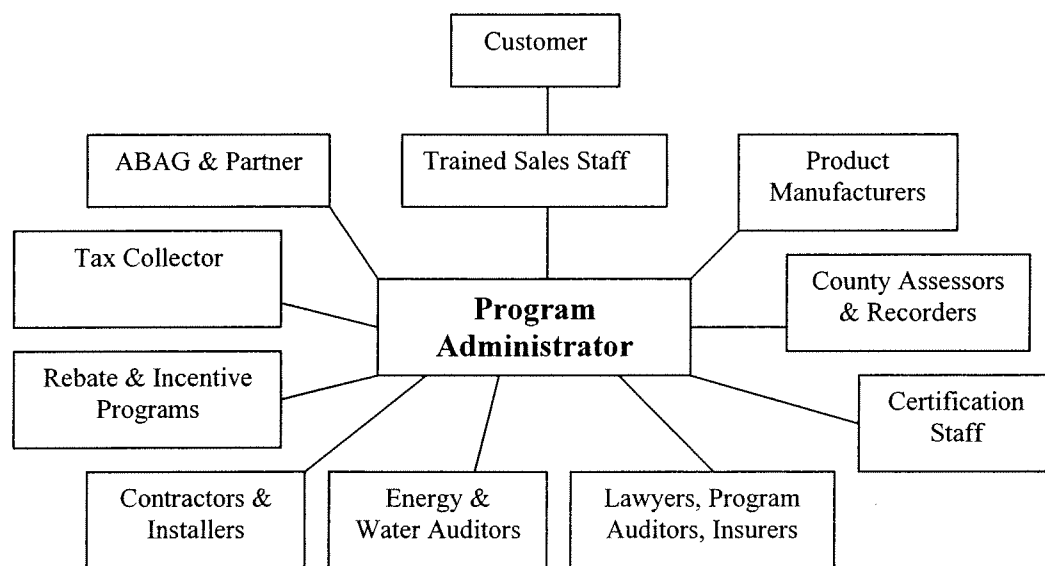
Administration

The administration component of this program envisions that a Program Administrator will be hired. This entity would manage the following items:

1. Establishment of the rules and regulations for program administration
2. Quality control standards
3. Documentation for project tracking and audits
4. Program website
5. Program applications
6. Application approvals (Confirm the applicant is the property owner, current on property taxes, and not in bankruptcy proceedings)
7. Billing and payment
8. Customer service representatives

9. Energy and water use assessments program criteria
10. Products available for financing
11. Installations
12. Certification of work completed
13. Coordination of available solar and energy efficiency installation incentives to reduce cost to the customer

Interested property owners would find out about the program through their utility bill, program website, or home improvement retail outlet. They would call or e-mail a sales person to guide the customer through the entire application and installation process. The Program Administrator will coordinate all parties involved in the program (See Diagram).



Facilitating Program Implementation

Implementation of the program can be facilitated by marketing to utility customers, minimizing permitting barriers, and ensuring an adequately trained work force exists to meet projected demand for solar and energy efficiency improvements.

Marketing to property owners will be important to generate enough customers to support the District and make strides toward reducing the region's demand for energy and production of greenhouse gases. A demand forecast will need to be developed in order to establish the feasibility of the District.

As programs advance solar and energy efficiency installation projects, an increase in demand is expected for these services, particularly if energy costs rise and/or additional legislative mandates are required for energy efficiency and greenhouse gas reduction. These factors will contribute to the already rapid growth of solar and energy efficiency industries, providing new employment opportunities for workers trained to perform

energy audits, weatherize homes, install solar panels, and undertake other related “green collar” occupations. The Centers of Excellence, an initiative of the California Community Colleges, completed a report in April 2008 that surveyed the solar industry in the San Francisco Bay Area and found that 257 solar firms projected they would add close to 1,900 jobs in the following 12 months. The report further found that solar employers have reported difficulty recruiting experienced and entry-level employees with adequate skills and training, and indicated strong interest in expanded training and educational programs that could be developed by the community colleges and other entities. The Center of Excellence is completing a similar study on Green Building and Energy Efficiency jobs. To respond to this demand, community colleges have already added coursework. Relevant training is also being offered by community based organizations, such as Cypress Mandela Training Center in Oakland, Rising Sun in Berkeley, and Solar Richmond. Job placement programs also exist to connect newly-trained workers with local employers. The SEE District can monitor the demand for solar and energy efficiency improvement services and the supply of a trained workforce in order to ensure a balance exists for further dissemination of solar and energy efficiency upgrades to reduce energy consumption.

Next Steps

The feasibility of creating a Solar and Energy Efficiency District to finance energy efficiency and solar installations for existing residential and small commercial units needs to be examined further. A business plan would help frame this process. Some program details that would need to be developed further or occur include:

- Signing SB 279 into law
- Establishing a partnership with PG&E to assist with the procurement of a Program Administrator and identify start-up and line of credit financing
- Conducting a market analysis
- Creating a business case and financial model
- Setting a minimum and maximum amount that will be financed by the District.
- Determining if the troubled financial markets can provide reasonable financing costs
- Developing a list of approved technologies and improvements that can be financed
- Coordinating energy and water conservation site assessments
- Establishing boundaries for the community facilities district
- Creating procedures for forming a community facilities district under SB 279 authority
- Coordinating with municipal utilities

Summary

The SEE District, as described above, would establish a regional special tax district financing program for renewable energy and energy efficiency projects. It will go beyond existing programs by incorporating a comprehensive customer service component and integrate other regional objectives around energy and water conservation, solar permitting process improvements, and green job creation and training.

